

Claims

[c1] A network monitoring apparatus for monitoring an interconnecting device that interconnects communication in a computer network, comprising:
a first storage unit having a plurality of notifications stored therein corresponding to each of a plurality of operations in said interconnecting device, respectively;
a detection unit that detects each of said operations in said interconnecting device; and
a notification unit that selects one of said notifications stored in said first storage unit based on said detected operation to notify of said detected operation of said interconnecting device by said selected notification.

[c2] A network monitoring apparatus as claimed in claim 1,
wherein said detection unit detects said each of said plurality of operations in said interconnecting device at a different interval.

[c3] A network monitoring apparatus as claimed in claim 2,
wherein an interval for detecting whether or not said interconnecting device is operating is shorter than an interval for detecting communication traffic in said interconnecting device.

[c4] A network monitoring apparatus as claimed in claim 1,
wherein said detection unit transmits a detection signal to said interconnecting device and detects said operations of said interconnecting device based on a response signal to said detection signal from said interconnecting device.

[c5] A network monitoring apparatus as claimed in claim 1,
further comprising: a second storage unit for storing an information signal indicating an operation of said interconnecting device, said information signal being received from said interconnecting device and stored corresponding to a time when said information signal is received, wherein said detection unit detects said operations of said interconnecting device by referring to said information signal stored in said second storage unit.

[c6] A network monitoring apparatus as claimed in claim 1,

wherein said detection unit detects said each of said operations of a plurality of said interconnecting devices at a different interval.

[c7] A network monitoring apparatus as claimed in claim 1, wherein said interconnecting device has a plurality of connection ports to which a plurality of communication devices are respectively connected, and said detection unit detects a communication status of each of said plurality of connection ports in said interconnecting device at a different interval.

[c8] A network monitoring apparatus as claimed in claim 1, wherein said notification unit transmits an e-mail to a predetermined e-mail address as said selected one of said notifications to notify of said detected operation of said interconnecting device.

[c9] A network monitoring apparatus for monitoring a plurality of communication devices that communicate in a computer network, comprising:
a detection unit that detects an operation of a predetermined communication device of said plurality of communication devices;
a scheduling unit that schedules a monitoring interval, which is an interval for monitoring said predetermined communication device, based on said operation detected by said detection unit; and
a monitoring unit for monitoring said predetermined communication device based on said monitoring interval set by said scheduling unit.

[c10] A network monitoring apparatus claimed in claim 9, wherein said detection unit detects a type of said predetermined communication device as said operation of said predetermined communication device and said scheduling unit schedules said monitoring interval for said predetermined communication device based on said type of said predetermined communication device detected by said detection unit.

[c11] A network monitoring apparatus claimed in claim 10, wherein said scheduling unit schedules said monitoring interval for a server

computer type of said predetermined communication device to be shorter than said monitoring interval for a client computer type of said predetermined communication device.

[c12] A network monitoring apparatus claimed in claim 9, wherein said detection unit detects communication traffic of said predetermined communication device as said operation of said predetermined communication device and said scheduling unit schedules said monitoring interval for said predetermined communication device based on said communication traffic detected by said detection unit.

[c13] A network monitoring apparatus claimed in claim 9, wherein said predetermined communication device has a plurality of connection ports to which a plurality of communication devices are respectively connected, and said scheduling unit schedules a monitoring interval, which is a corresponding interval for monitoring a communication status of each of said plurality of connection ports of said predetermined communication device, respectively.

[c14] A network monitoring apparatus claimed in claim 13, wherein said detection unit detects a corresponding communication device type connected to each of said plurality of connection ports, respectively, as said operation of said predetermined communication device, and said scheduling unit respectively schedules said monitoring interval of each of said plurality of connection ports based on said corresponding communication device type detected by said detection unit.

[c15] A network monitoring apparatus claimed in claim 14, wherein said scheduling unit schedules said monitoring interval for a first connection port to which a server computer is connected to be shorter than said monitoring interval for a second connection port to which a client computer is connected.

[c16] A network monitoring apparatus claimed in claim 13, wherein said detection unit detects respective communication traffic for each of said plurality of connection ports and said scheduling unit respectively schedules

said monitoring interval for each of said plurality of connection ports based on said communication traffic detected by said detection unit.

[c17] A computer-readable medium storing a network monitoring program for a computer to monitor an interconnecting device that interconnects communication in a computer network, said program comprising:
a storage module operable to make said computer store a plurality of notifications to notify of each of a plurality of operations in said interconnecting device, respectively;
a detection module operable to make said computer detect each of said operations in said interconnecting device; and
a notification module operable to make said computer select one of said notifications stored in said computer based on said detected operation and to notify of said detected operation in said interconnecting device by said selected notification.

[c18] A computer-readable medium storing a network monitoring program claimed in claim 17, wherein said detection module is operable to make said computer detect each of said plurality of operations in said interconnecting device at a different interval.

[c19] A computer-readable medium storing a network monitoring program claimed in claim 18, wherein said detection module makes said computer detect each of said plurality of operations in a plurality of said interconnecting devices at a different interval.

[c20] A computer-readable medium storing a network monitoring program for a computer that monitors a plurality of communication devices communicating in a computer network, the program comprising:
a detection module operable to make said computer detect an operation of a predetermined communication device of said plurality of communication devices;
a scheduling module operable to make said computer schedule a monitoring interval, which is an interval for monitoring said predetermined communication device, based on said operation detected by said computer; and

a monitoring module operable to make said computer monitor said predetermined communication device based on said monitoring interval scheduled by said scheduling module.

[c21] A computer-readable medium storing a network monitoring program claimed in claim 20, wherein said detection module is operable to make said computer detect a type of said predetermined communication device as said operation of said predetermined communication device; and said scheduling module is operable to make said computer schedule said monitoring interval for said predetermined communication device based on said type of said predetermined communication device detected by said computer.

[c22] A network monitoring program claimed in claim 21, wherein said detection module is operable to make said computer detect communication traffic of said predetermined communication device; and said scheduling module is operable to make said computer schedule said monitoring interval of said predetermined communication device based on said communication traffic detected by said computer.

[c23] A network monitoring method of monitoring an interconnecting device that interconnects communication in a computer network, the method comprising: storing a plurality of notifications to notify of each of a plurality of operations in said interconnecting device, respectively; detecting an operation in said interconnecting device; and selecting one of said stored notifications based on said detected operation and notifying of said detected operation of said interconnecting device by said selected notification.

[c24] A network monitoring method of monitoring a plurality of communication devices that communicate in a computer network, the method comprising: detecting an operation of a predetermined communication device of said plurality of communication devices; scheduling a monitoring interval, which is an interval at which said predetermined communication device is monitored, based on said detected operation; and

monitoring said predetermined communication device based on said monitoring interval.